

12. The driving circuit as claimed in claim 9, further comprising:

an excessive current detecting/maintaining unit for detecting a current occurring from the DC power supply through the switch monitor unit, and outputting an excessive current  
5 detecting signal to the pulse driving unit to cut off the occurrence of the driving pulses of the pulse driving unit if the detected current corresponds to an excessive current.

13. The driving circuit as claimed in claim 12, wherein the switch monitor unit includes a three-terminal monitor switch for selecting either of a first loop connecting the DC  
10 power supply and the fuse, or of a second loop connected to the excessive current detecting/maintaining unit by the switching operations.

14. The driving circuit as claimed in claim 12, wherein the excessive current detecting/maintaining unit includes:

15 an excessive current detecting part for detecting a current supplied to the inverting unit;

a comparison part for comparing the detecting signal outputted from the excessive current detecting part with a predetermined reference signal and outputting a comparison  
result signal; and

20 a feedback part for outputting to the comparison part a feedback signal exceeding the reference signal in the control of the pulse driving unit.

15. The driving circuit as claimed in claim 14, further comprising:

an amplifying unit for amplifying the detecting signal outputted from the excessive current detecting part and applying the amplified detecting signal to the comparison part.

5 16. A driving circuit of a DC microwave oven having an inverting unit for converting a DC voltage of a DC power supply into an AC voltage by driving pulses, a high voltage transformer for transforming the AC voltage applied by the driving of the inverting unit and supplying the transformed AC voltage to a magnetron, and a pulse driving unit for generating the driving pulses, comprising:

10 a switch monitor unit for cutting off the supply of a voltage to the high voltage transformer from the DC power supply when a cooking chamber door is in an open state.

17. The driving circuit as claimed in claim 16, wherein the switch monitor unit includes:

15 a plurality of monitor switches mounted in a position capable of short-circuiting the primary coil of the high voltage transformer and switched according to the opening and closing operations of the cooking chamber door; and

a fuse mounted in a voltage supply path connecting the plurality of monitor switches and the DC power supply.

20 18. The driving circuit as claimed in claim 17, wherein the one ends of the plurality of monitor switches are connected with the DC power supply through the fuse, while the other

ends thereof are connected between the inverting unit and the primary coil of the high voltage transformer.

19. The driving circuit as claimed in claim 16, further comprising:

5 an excessive current detecting/maintaining unit for detecting a current generated from the DC power supply through the switch monitor unit, and outputting an excessive current detecting signal to the pulse driving unit to cut off the generation of the driving pulses of the pulse driving unit.

10 20. The driving circuit as claimed in claim 19, wherein the switch monitor unit includes a three-terminal monitor switch for selecting either of a first loop connecting the DC power supply and the fuse, or of a second loop connected to the excessive current detecting/maintaining unit by the switching operations.

15 21. The driving circuit as claimed in claim 19, wherein the excessive current detecting/maintaining unit includes:

an excessive current detecting part for detecting a current supplied to the inverting unit;

20 a comparison part for comparing the detecting signal outputted from the excessive current detecting part with a predetermined reference signal and outputting a comparison result signal; and